PATENT ABSTRACTS OF JAPAN

(11)Publication number:

2003-104800

(43) Date of publication of application: 09.04.2003

(51)Int.CI.

C30B 29/52 C30B 13/00

H01L 33/00

(21)Application number: 2001-300467 (71)Applicant: NATIONAL INSTITUTE FOR

MATERIALS SCIENCE

KYOCERA CORP

(22)Date of filing:

28.09.2001

(72)Inventor: OTANI SHIGEKI

SUDA ATSUSHI

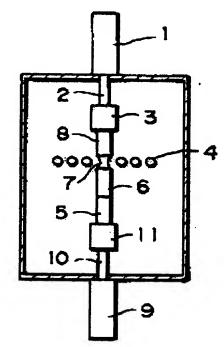
KINOSHITA HIROYUKI

(54) BORIDE SINGLE CRYSTAL, SUBSTRATE FOR FORMING SEMICONDUCTOR, AND ITS MANUFACTURING METHOD

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a good diboride substrate having no crack and no grain boundary, and necessary for forming a thin film.

SOLUTION: The single crystal of ZrB2 or TiB2 is manufactured by crystallizing a raw material rod prepared by mixing a Y ingredient and a boride of an alkaline earth metal into ZrB2 or TiB2, by high frequency floating zone method. By this method the single crystal having no crack, and having substantially no grain boundary, is obtained. The single crystal is sliced in a disk, and its surface is polished into the substrate and used as the substrate for forming the semiconductor thin film.



LEGAL STATUS

[Date of request for examination]

Date of sending the examiner's decision of rejection]

Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

TEST AVAILABLE COPY

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's

decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office